COMMITTEE HEARING

BEFORE THE

CALIFORNIA ENERGY RESOURCES CONSERVATION

AND DEVELOPMENT COMMISSION

In the Matter of:	)	
	)	Docket Nos.
Informational Proceeding and	)	03-IEP-01
Preparation of the 2004 Integrated	)	02-REN-1038
Energy Policy Report Update	)	03-RPS-1078
	)	04-DIST-GEN-1
(2004 Energy Report Update)	)	
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FRESNO STATE BUILDING

ROOM 1036

2550 MARIPOSA MALL

FRESNO, CALIFORNIA

FRIDAY, OCTOBER 8, 2004

10:39 A.M.

Reported by:
James Ramos
Contract No. 150-04-002

COMMISSIONERS PRESENT

John Geesman, Presiding Member

James Boyd, Associate Member

ADVISORS PRESENT

Michael Smith

Scott Tomashefsky

Chris Tooker

Tim Tutt

STAFF PRESENT

Kevin Kennedy, Program Manager

Sandra Fromm, Assistant Program Manager

ALSO PRESENT

Mark Grossi, Staff Writer
The Fresno Bee

Erin Waldner

I N D E X

P R O C E E D I N G S

9:29 a.m.

PRESIDING MEMBER GEESMAN: This is the meeting of the California Energy Commission's Integrated Energy Policy Report Committee, designed to update our 2003 Integrated Energy Policy Report with a 2004 supplement. The 2003 report identified three issues in need of greater scrutiny in 2004.

Those were the role that aging power plants play in meeting our electricity requirements. Ways in which to improve the planning for transmission upgrades. And methods by which we can accelerate the development of renewable energy sources.

This is our 19th public hearing in that process. We will publish a revised draft on October 20th and present the full report in draft form to the Commission on November 3rd.

It's our understanding that if the Commission adopts the report November 3rd, that the Governor is likely to provide a response that the statute calls for in late November or early December. Thereafter, the report and its recommendations will be transmitted to the

Legislature.

Commissioner Boyd, did you have anything to add?

COMMISSIONER BOYD: Well, I'd just say it's a pleasure to be here in Fresno at this hearing. In my 15 years as a State Air Director I did many hearings here in Fresno, usually the audiences were larger. That issue seemed to generate more interest.

But this is a very serious issue for the State of California, following upon its electricity crisis. And the Legislature, in its wisdom, I feel, after the fall of the electricity sky in California, passed legislation requiring the Energy Commission to prepare an Integrated Energy Policy Report.

And it's more than electricity. It's all three legs of the energy stool. It's electricity, natural gas and transportation fuel, all of which are shaky legs of our energy stool in California. And as Commissioner Geesman and I and the staff know, the economy rests itself on that stool oftentimes.

So this is a fairly critical topic. Last year's report, the first, identified a whole

menu of issues, with the three that Commissioner Geesman mentioned as the ones for followup this year before we do the complete review in year 2005.

The law provided that every other year there be a total review of the issues; and in the intervening years the Commission was at liberty to address specific subjects that it had identified.

Commissioner Geesman and I are the Commissioners who will also do the 2005 report. And so this is good background for us, and good lessons in public outreach for us in conducting those hearings, when we start that process. Actually, we have started that process, but we're not to the public hearing stage just yet.

We look forward to public input on the subject from the interested publics who find this an issue of concern to them. So, with that, I guess we will, at the end of this hearing, conclude our stint on the road of public hearings and public workshops for the 2004 update, as Commissioner Geesman indicated.

And look forward to presenting the report to the full Commission, and then to the public at large, and the policymakers in

California, the Governor and the Legislature.

I would say, for this limited audience, that Commissioner Geesman and I have been quite pleased by the reception that this general subject has gotten here to date, and the fact that we hear from policymakers in Sacramento and those affected throughout the state, that this Administration will look upon the 2004 IEPR report, as we choose it, from this Commission in concert with the 2003 report, which has not been fully aired by many policymakers in light of the changes in the California government last fall. Things got changed a little bit.

And it will be a very significant, if not the agenda, for energy policy issues in California to be addressed by this Administration, and perhaps the Legislature in 2005 and beyond. So this report becomes that much more significant; and the 2005 report, therefore, becomes extremely significant with regard to our energy future.

So, with that, thank you.

PRESIDING MEMBER GEESMAN: Sandra, would you like to give the staff report?

MS. FROMM: Good morning. I'm Sandra Fromm, the Program Manager for the 2004 Energy

Report process. Thank you for coming here today.

I'd like to also introduce some of the Advisors that weren't introduced earlier. Chris Tooker is out in the audience. Tim Tutt is out in the audience. Mike Smith and Scott Tomashefsky. And the Program Manager is Kevin Kennedy, sitting back there in the blue.

COMMISSIONER BOYD: Hiding back here. You can be proud of your report, Kevin.

MS. FROMM: We'd like any written comments you might have on the report by October 13th. And the purpose of today's meeting is really to get public comment on the 2004 document. So, that's basically why we're here.

I think Commissioner Geesman gave a little background on this. The process for the 2004 report was very public. We worked with state agencies; we had numerous meetings with stakeholders. As Commissioner Geesman indicated earlier, we had 19 public workshops and hearings. Over 200 public comments were docketed. And the three staff reports were prepared based on the public record. And then the Committee prepared its report based on the public record and the staff reports.

With that I'm going to quickly review the -- is this the mike for -- okay, sorry. I'll just talk louder.

With that, I'll go over --

COMMISSIONER BOYD: If you can't hear Sandra, just move up. There's plenty of room.

(Laughter.)

MS. FROMM: I'll quickly go through the recommendations made in the Committee's draft report.

In looking at near-term supply and reliability concerns the 2003 Energy Report concluded that under average weather conditions California would have adequate energy supplies through 2009. But if adverse weather occurs, reserve margins, starting in 2006 and beyond, could fall below the 7 percent threshold needed to maintain system reliability.

The 2004 aging retirement power plant study noted that as many as 9000 megawatts of power plants are at risk of retiring by 2008. If many of these retire between now and 2008 we could potentially fall below the 7 percent threshold needed to maintain reliability.

To address the near-term supply issues

and reliability concerns the Committee recommends that all investor-owned utilities and municipal utilities work aggressively to attain the 2007 statewide goal of 5 percent peak demand reduction through demand response programs.

The Committee laid out a number of specific suggestions in the report, such as modification of the tariff design, immediate rollout of advanced metering systems, and development of dynamic rate offerings.

The Committee further recommends that the Energy Commission work with the PUC to develop a capacity market that includes a capacity tagging mechanism and tradeable capacity rights.

The Committee also recommends that the Energy Commission and the PUC and all the utilities enhance supply management by establishing more closely coordinated planning and reserve sharing, pursuing cost effective seasonal exchanges with the Pacific Northwest, and exploring opportunities to use existing pump storage facilities more fully.

Although the Committee proposes these short-term solutions, they recognize that these solutions should not interfere with the long-term

goals of our electricity system.

Transmission upgrades and expansions are critical to insuring a reliable electricity delivery system, however these expansions typically have long lead times and should be considered during the planning process.

SB-1565, recently signed into law, requires that the Energy Commission adopt a strategic plan for the state's transmission grid.

The Committee recommends that the Energy Commission establish a comprehensive, statewide planning process with the Public Utilities Commission, Cal-ISO, other key state and federal agencies, stakeholders and any interested public.

The transmission system, planning system must recognize the long and useful life of transmission assets, their public goods nature, identify transmission corridors and consider access to the state's renewable resources.

The Committee further recommends that the Energy Commission increase its participation in the joint transmission study group on the Tehachapi wind resources area; work with the PUC to establish a joint study group for Imperial County's geothermal resources, and work with the

PUC and ISO to investigate whether changes are needed to the Cal-ISO tariff to meet transmission needs for renewables.

While the Governor supports a 33 percent by 2020 goal for all utilities, he vetoed SB-1478 due to provisions that it will impede progress on renewables. The Committee recommends that the state enact legislation to require all suppliers of electricity, including large, publicly owned electric utilities, to meet a 33 percent eligible renewable by 2020.

Additionally, they have a specific utility target for Southern California Edison to purchase at least 1 percent of additional renewable energy by the year -- between the year, excuse me, 2006 and 2020.

The Committee also recommends the repowering of wind turbines to harness wind resources efficiently and prevent bird deaths. Since the draft document was released, the federal tax production credit was extended by Congress to 2005. Although it hasn't been signed yet, the American Wind Energy Association has indicated that President Bush is likely to sign it. Passage of this bill will help stalled wind projects come

online.

The Committee further recommends that the PUC require investor-owned utilities to facilitate repowerings in its pending effort to develop QF contracts.

Although the Energy Commission will launch a performance-based PV incentive pilot program in 2005, the Committee makes this an official recommendation to reinforce this program.

Lastly, the Committee recommends that the Energy Commission continue to assist the Governor's solar initiative to achieve a greater market penetration of PV systems.

As Commissioner Geesman indicated earlier, this is the final hearing in a series of hearings around the state on the 2004 Energy Report update. The Committee will publish its final draft document on October 20th. And the full Commission will hear the item at the November 3rd business meeting.

I'd like to just remind you that we appreciate receiving any written comments by October 13th.

With that, I'll turn the hearing back over to the Committee.

PRESIDING MEMBER GEESMAN: Thank you, Sandra. Do we have any public comment or any questions from anyone in the audience?

COMMISSIONER BOYD: You folks are questioners.

PRESIDING MEMBER GEESMAN: Mr. Tooker.

(Laughter.)

DR. TOOKER: I think it would be interesting for those here to know what the difference is between what we currently do in our incentive program for solar or renewables and the performance-based approach. What do we do now and how is (inaudible).

PRESIDING MEMBER GEESMAN: Well, the current program is focused on buying down the front-end capital costs of eligible systems. And almost all of the systems that have been installed to date have been photovoltaic systems. Small wind does qualify, but most of the installations have been solar.

A performance-based system, rather than focused on the front-end costs, would subsidize the output from the solar systems on a metered basis. So that the incentive would be to, in effect, purchase each kilowatt hour from the solar

system.

The belief is that the systems would be both better designed, more effectively installed and better maintained over the long term in that fashion.

We propose a pilot program that would go into effect in January to determine if those assumptions are accurate or not.

Sir.

MR. GROSSI: Can I ask you about the idea of generating electricity from (inaudible)?

PRESIDING MEMBER GEESMAN: Commissioner Boyd.

COMMISSIONER BOYD: That's a very viable technologically, and heretofore a little bit out on the outer edges of positive economics. But it's something I personally, and I think we at the Commission are extremely interested in.

And I think the economics are turning around somewhat. And quite frankly when we, as a society, get a little bit better at valuing societal goods or being able to take into account some of the external costs or externalities, as the term is often -- like the air quality benefits that you derive from that, as well as other forms

of waste beyond just digesters say in dairies or hog farms or what-have-you, when you start taking into account, you know, the avoided costs with respect to other environmental damages, I think we're going to see more and more attention given to using our waste as a way of deriving energy.

And it's not just electricity. I mean, yes, you can derive biogas that you can use to generate electricity. Yes, you can derive biogas which is, admittedly, slightly poor form of methane. But you can upgrade it; you can put it into your backbone natural gas system is you wanted to. Or you can use it as a transportation fuel even if it's in just specific areas rather than universally.

I had the pleasure earlier this year of being a guest of some folks in Sweden and looking at their very expensive digester applications where they derive -- they use food waste, all organic waste that they can get their hands on, as well as even municipal waste, to some degree, and agricultural waste from particularly hog farms. And create biogas which is upgraded; stripped of CO2, et cetera, et cetera, and inject it into a pipeline system that feeds an apparently extensive

system to fuel motor vehicles only. It's not even put into their system for heating homes or industrial uses.

So there's lots of potential. And I think California is at a very significant crossroad where this is very meaningful.

And I mentioned earlier that indeed for 15 years I was the State Air Director, and I know the San Joaquin Valley and its air quality issues. And I know for years many of us dreamed about crossing that bridge into using a lot of this waste for practical problems.

And as we struggle more with the concerns about the greater and greater demand on natural gas, as we also struggle with what to do with waste, I mean -- and as we, as a state, have become very sensitized finally to climate change and the ramifications of lots of our activities on climate change, I think the utilization of waste, and the fact that some of those, quote "wastes" are really renewable materials that can be used to provide energy in many forms, I think is very significant.

I think we've just scratched the surface in our 2003 major report. I anticipate a lot more

discussion of that subject in our 2005 major update.

But it's -- unfortunately so many of the good things to do are hinged on the pure economics, and they lose out.

Now, the state has made policy decisions, as you derived from the previous question, about renewables, and the state has made policy decisions to make investments of state moneys in renewable programs and what-have-you to provide initial incentives to, you know, to get some of these technologies through the valley of death, as it's called, et cetera, et cetera, and up and going. And I think more and more that will occur in areas of waste, or biomass, as I call it, in the future.

So, thanks for asking the question. It allows me to pontificate on the subject.

MR. GROSSI: -- particularly in this (inaudible) that, I don't know, 380 sunshine -- talking about solar, talking about the kind of waste generation, you're talking about the biomass, the farming industry alone has thousand and thousands of tons of crop waste.

It just seems to many of us here that

it's (inaudible) especially (inaudible) to turn those negatives into a positive. And, you know, I think that would be my question, as a taxpayer, is that being addressed in the reports that you talk about in Sacramento? I would (inaudible).

PRESIDING MEMBER GEESMAN: Our challenge is to bring the pace of policy development up to parity with the pace of technological development. The technology for many of these renewables sources has moved quite a bit faster than the state's ability to come up with policies to both promote the technologies and to remove institutional barriers that impede further progress.

The biomass area is probably one of the more interesting ones because the challenge there is creating revenue streams that can overcome the economics of the technology. We're not allowed to say let's raise taxes; that's politically verboten. So that option is off the table.

We do, from time to time, as a state, engage in tax incentives directed at things that we want to favor or to bring forward. We currently operate a fairly limited incentive or subsidy program funded entirely by the electricity

ratepayers.

As Commissioner Boyd said, we haven't been able to properly monetize the waste disposal value or the air quality benefit that might be achieved by pursuing some of these technologies a little more aggressively.

So the burden on us and on our ability to persuade both the Governor and the Legislature, is to bring the pace of the policy development into a little bit better match with how rapidly some of the technologies have actually been approved.

COMMISSIONER BOYD: And since you asked, let me just point out that the Energy Commission has been interested in this subject for quite some time; has invested some of its research dollars in this arena.

And as a result of a couple of year s of intense discussions within state government of the subject, about a year ago the Energy Commission provided the seed money to create the so-called Biomass Collaborative, which is housed at the University of California at Davis. Which was an attempt to continue to broaden, expand interest in the subject and work on the subject.

The other thing that has been done by the Commission with some of the research dollars it has, it is participating in the Inland Empire, as it's called, down in southern California, in a project that does involve using dairy waste and sewage sludge in a digester application to start creating digester gas, that at the present is intended to be totally consumed inside the system that is treating all this.

But that's, you know, that's R&D; that's research that will therefore be exportable to the Valley here. They had the impetus down there of not only being in the area of the worst air quality, but having extremely significant groundwater problems and dairies contributing, as they are here, to problems.

So they had to clean up groundwater issues; they had to address a lot of this. And it allowed, you know, a real systems look at the issue in a very synergistic approach, let's say, to solving the problem.

And we're hopeful that we can export that experience to other parts of the state, principally this particular area. So that's underway right now and bodes well for the future,

I think.

And based on what I've seen there, and in other parts of the world, it's do-able. You just have to make a commitment there, too.

PRESIDING MEMBER GEESMAN: Yeah, I would say in terms of bringing some of these technologies into the commercial mainstream that that is likely to prove the most successful in geographic areas where there's a proximity to fuel source and there's a proximity to adverse environmental impacts. That's where you're likely to have the combination of both benefits and political willpower, if you will, to solve some of these commercialization hurdles that need to be overcome.

And I think quite obviously much of that is likely to take place right here in this Valley.

COMMISSIONER BOYD: I think Commissioner Geesman and I intend, in the 2005 process, to see that the subject of climate change is discussed more. The Commission has created a climate change advisory Committee now, which just happened, met yesterday for the second time.

And when you hook that subject into a lot of the others we've talked about, and I'm

going to go back to Sweden again and just say when you have a government that says we're interested in climate change, we have problems with our landfills, as does California, and we're going to forbid organic waste going to our landfills at all in the next couple of years. And we have a water quality problem associated with our farm and dairy and hog farms, et cetera.

You put all that together into policy considerations it does provide a forcing function for them to come up with innovative solutions to some of those problems.

California, we still direct incredible amounts of cellulosic, i.e., wood waste, as well as, of course, almost all organic waste, to landfills. And we have a landfill problem.

As we begin to couple some of these things together, and if we have to do it under the umbrella of the energy issue facing the state, and now the people discovered that energy, in all its forms, is so incredibly important to, you know, to fuel the engine that drives the economy, I think we can get more and more of these issues discussed as being associated with energy.

And as Commissioner Geesman properly

pointed out, start generating some of the sources of funding to move money from column A to column B, so to speak, to invest in these things.

Right now, you know, they have a societal benefit, but nobody -- people even to hook values on them, but there's no cash sitting there to invest. Well, as you look at them as opportunity costs or, you know, avoided costs, you know, we're burning up the state with forest fires and wildfires, there's a lot of material there you could use, et cetera, et cetera.

The farm materials that should not be burned in the fields anymore are -- there's a lot of opportunities. I think in your lifetime you're going to see a lot happening in this Valley to address that.

I guess the other thing is to breathe new life into the agricultural community to avoid the only thing to grow in the Valley being houses, we're going to have to address some of this.

PRESIDING MEMBER GEESMAN: Yeah, I would suggest that where you'll see some actual momentum develop is when people begin to perceive serious business opportunities in recognizing the energy value. Many of the things we consider waste

today, and for that matter, when energy crops become a more viable technological phenomenon.

What we're most in need of is turning some of these experimental R&D projects into actual profit-making commercial ventures. That's something that government can serve a spark function. But the tinder for that, the fanning of those flames generally is conducted by the private sector.

COMMISSIONER BOYD: Getting back to, and closing the loop on your question a little bit more, another observation I've had, particularly as a result of all the years in the air quality business, is, you know, agriculture used to be California's number one business. A very powerful industry, very self sufficient. And a lot of good people, I know a lot of people in the Fresno area involved in that are the heads of associations and what-have-you.

But, admittedly the ability to create partnerships between government and that community has been difficult because if there were any frontier industries left, to me it was kind of like the agriculture industry. Very reluctant to get too close to government for fear of a negative

impact.

I think it took ten years of my 15 years in the air quality business to build a very good relationship -- to finally build a working relationship with the agricultural community. And to not make a joke out of the fact that we're from government, we're here to help. But to make that somewhat sincere and create some working partnerships.

And I think I've observed in the last five years a major change in the attitude of the agriculture industry towards working with government on solutions to some of the problems. And probably maybe government can actually -- and even the environmental community partnerships have formed up -- to maybe hold off building houses on every single decent piece of ag land, et cetera, et cetera.

And I think there are a lot more activities underway in cooperation between the industry and governments and academia to address a lot of the social, societal and environmental issues that are faced or affecting that industry, that you'll see more interest in doing some of these innovative things that will actually benefit

agriculture.

As well as Commissioner Geesman has pointed out, provide new business opportunities for some of the, you know, what was waste, is becoming more and more yet another product or commodity that can be used to generate something in the economy, and perhaps even create a revenue stream that's positive.

So, hopefully it'll all get done fast enough to maintain agriculture as an extremely viable industry in the state.

So thanks for the question. As you see, it stimulated a lot of --

MR. GROSSI: There was one more thing, I don't know whether my colleague wanted to know this, but --

THE REPORTER: Excuse me, do you want to come forward with your questions here, since we're on the record.

UNIDENTIFIED SPEAKER: And James doesn't often say that, so --

(Laughter.)

MR. GROSSI: In the presentation there was one spot that sort of hit me, and it was right in the beginning. 2009, we're okay till then, and

maybe --

UNIDENTIFIED SPEAKER: -- in the first --

MR. GROSSI: Probably the very first one.

UNIDENTIFIED SPEAKER: Yeah.

MR. GROSSI: Probably we're okay unless we have adverse weather. And the advisory for this meeting said that we're talking about possibly by 2005 being into another energy crisis like we were in 2001. And the people around here want to know that. And that's the first thing my editor is going to ask me when I go back.

Under what circumstance would we walk into a problem like that?

COMMISSIONER BOYD: We had to say something to get you here to this hearing.

(Laughter.)

PRESIDING MEMBER GEESMAN: As you and I were discussing before the meeting, we see this problem in front of us, and the report goes into this in some detail, as principally a southern California-centered problem. And when I say southern California I mean south of the Tehachapis.

And when we speak of adverse weather, the way our modelers characterize that as a summer that would be a one-in-ten likelihood of occurrence. So the types of peak summer temperatures that we have once every ten years.

We try to plan for that, and that's been a traditional standard in the electricity business, as a planning criterion.

In southern California, because of limitations on our transmission grid, and because of reliance on a large number of relatively old power plants, power plants that are under some economic pressure to cease operation, we do see the potential for problems if too many of those plants retire as early as this coming summer.

We think there are a variety of responses that the state should initiate, and those are detailed in the report, to try to reduce that prospect.

The first and probably most significant would be to alter our tariff system, principally for large customers at first, but ultimately for residential customers that live in air conditioning zones, so that those customers see the true cost of providing electricity in those

peak hours.

We define peak hours as 50 to 100 hours a year, and that's out of an 8700 year. There are somewhere between 50 and 100 where our demand spikes up in a needle fashion, if you were to draw it on a graph. That's caused principally by air conditioning loads.

And sadly to say, a lot of those air conditioners are going in homes or dwellings that aren't occupied during those hours. It's convenient to leave your air conditioner set at the same temperature when you go to work. I know it's nice to come home to a cool house.

But at the same time, I think we should all recognize that one of the reasons we behave like that is our utility tariff operates on a hide-the-ball principle. We don't see the actual cost of that hour between 3:00 and 4:00 in the afternoon. It's all averaged into all hours during the month.

Sure, your bill goes up in August, but I think, particularly if you're a business, I think that if you're able to see the actual cost of receiving that service on an hour-to-hour basis, or with some of the advanced meters you can go on

a minute-by-minute basis, it will affect your usage pattern.

Think of the way in which all of us drive around cognizant of the posted prices for gasoline. Price does have an impact on behavior. But in the electricity sector we don't share that information with the customer. We give the customer an average bill at the end of every month, but we won't tell him what his actual usage pattern is on a time-of-day basis, and what the actual costs that flow along with that are.

The most effective thing state government can do between now and next summer is to develop the types of time-sensitive tariffs that will clearly send that price signal. Which we think, based on pilot programs that we've operated and on the experience of people in other states and in other countries, will materially affect behavior.

MR. GROSSI: I'd need a new meter, wouldn't I?

PRESIDING MEMBER GEESMAN: You'll need a new meter. And one of the things that is little known among the public, the taxpayers, during the energy crisis, paid for the installation of some

25,000 new meters for all of the largest customers of California. Those customers represent approximately 70 percent of the electricity load.

We've not yet put into place the time-of-use tariff necessary to fully utilize those meters. And as you can imagine, at the Public Utilities Commission, making that sort of change is a fairly momentous decision.

I think that the thrust of our report is it's time to make that decision. And we need to have done so before the summer of 2005.

COMMISSIONER BOYD: I want to make one additional comment. Circling back to our earlier discussion and the question in my comments about the ag industry's now working in partnership with government and what-have-you.

And after I'd said that and during the course of this discussion, it suddenly dawned on me that I'm in Fresno. And this is the home of one of the Associations that kind of pioneered this partnering with government, at least as a representative of the ag community. The Nisei Farmers League. And it's now leader Manuel Cunha.

We're among almost the first of the agricultural organizations to sit down at the

table with government and be willing, with other industrial leaders, to kind of talk about the environmental consequences and air quality issues and so on and so forth.

And quite frankly, as we approach the major revision of our report, and have to cover a lot of other issues, I have that organization in mind to talk to again with regard to the subject of energy use. Because energy cost is very significant in the agricultural community, particularly for food processors and food processing.

However, one of the big uses of electricity in the state is the movement of water around. And, of course, a lot of that water is moved for and/or by agriculture. And that's another area where we have interest in assuring that we have, you know, we get the most efficient approaches to the movement of water, and efficient types of hardware and machinery. Something that again the Commission has invested in with its research activities to help. And in its financial aid types of programs, as well.

So the Valley and its big industry, agriculture, will continue to be large players in

working on and working with and being concerned about energy use, I am quite confident.

MS. WALDNER: How important is it that the transmission in Tehachapi be upgraded and expanded?

PRESIDING MEMBER GEESMAN: The transmission issue in Tehachapi is a critical prerequisite to developing the 4000 megawatts of the wind potential in Tehachapi. And that is probably the largest single aggregation of renewable energy resources likely to be commercially developed over the course of the next decade.

So when you see the state promoting aggressive renewable energy goals, for the electricity sector we have been quite forceful, as has the Governor, in requiring our utilities to get 20 percent of their electricity from renewables by the year 2010. Our report suggests, as the Governor has, adding to that a 33 percent goal by 2020.

Achieving those goals is going to require a pretty significant contribution from the Tehachapi wind resource. We're only going to be able to accomplish that if we improve the

transmission interconnection of the rest of the grid with that region.

MS. WALDNER: Where is the study group at right now?

PRESIDING MEMBER GEESMAN: We're supposed to have a report, I believe, early in 2005. Southern California Edison Company is expecting to file a certificate of public convenience and necessity, which is the permit application, I believe in December for different pieces of the upgrade.

And Edison has indicated that it may not be ready yet to make that filing for the entire set of upgrades. But the study group is designed to try and review what the best alternatives would be.

And I would expect that process is going to continue on into '05, and probably into 2006, as well.

MS. WALDNER: When, then, physically could expansion of transmission (inaudible) actually be expanded? I mean when, in reality, could we see it?

PRESIDING MEMBER GEESMAN: It'll come in increments. There is some transmission capacity

now. You'll see that incrementally expanded over the next two years. I think the real challenge is what will the pace of that expansion be.

There's some argument that actually approaching the area from the north, rather than Edison's proposal to build up from the south, approaching the area from the north by upgrading what's called Path 26, would be a better approach, and confer more benefits than simply commercializing the Tehachapi wind resource.

That's being reviewed both by the study group and by the Cal-ISO which is the nonprofit corporation that administers our electricity grid.

Other questions or areas of curiosity?

Well, then I think it's off to an early lunch. I want to thank you all very much for your participation.

We will next convene again, I guess, for our November 3rd full business meeting. Publish a draft, a revised draft October 20th. And we'd invite your written comments by October 13th.

Again, I want to thank everybody, and we will be adjourned.

(Whereupon, at 11:37 a.m., the hearing was adjourned.)

CERTIFICATE OF REPORTER

I, JAMES RAMOS, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Hearing; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing, nor in any way interested in outcome of said hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 17th day of October, 2004.